

# Effect of Different Cover Crops on Suppression of the Weed *Oxalis pes-caprae* L., Soil Nutrient Availability, and the Performance of Table Olive Trees ‘Kalamon’ cv. in Crete, Greece

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**Supplementary Table S1.** Effect of using seed of a commercial legume variety (*Vicia sativa*) and seed of a native legume species (*Medicago polymorpha*) collected in olive orchards on the relative establishment of the respective legume species and the weed *Oxalis pes caprae*

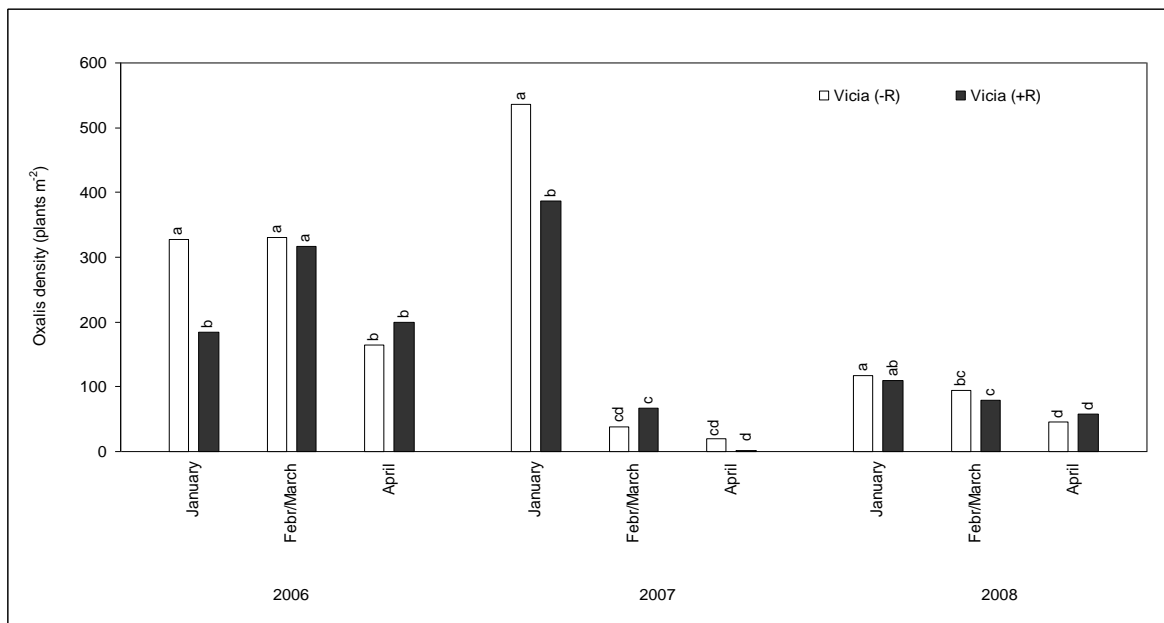
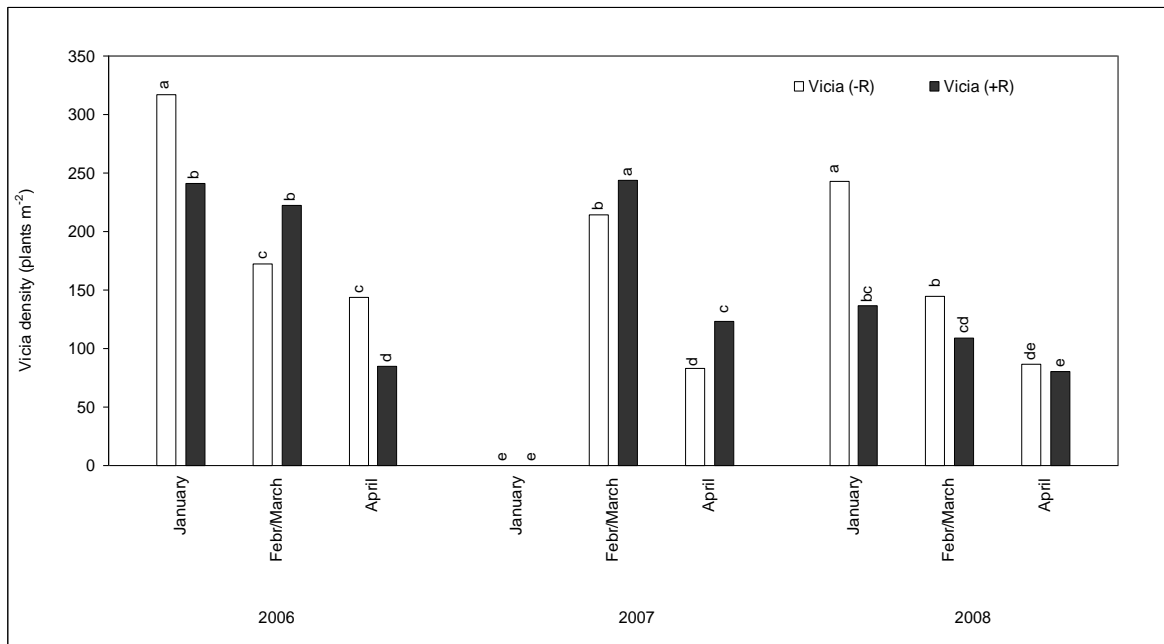
| Factors                         |                       | Legume density<br>(plants/m <sup>2</sup> ) | Oxalis density<br>(plants/m <sup>2</sup> ) |
|---------------------------------|-----------------------|--|--|
| Year                            | 2006                  | 108 (9) <b>a</b>                           | 267 (10) <b>a</b>                          |
|                                 | 2007                  | 57 (6) <b>c</b>                            | 231 (19) <b>a</b>                          |
|                                 | 2008                  | 83 (7) <b>b</b>                            | 161 (10) <b>b</b>                          |
| Months                          | January               | 97 (10) <b>a</b>                           | 339 (17) <b>a</b>                          |
|                                 | February/March        | 94 (7) <b>a</b>                            | 225 (11) <b>b</b>                          |
|                                 | April                 | 57 (4) <b>b</b>                            | 95 (8) <b>c</b>                            |
| Cover crop treatment            | <i>V. sativa</i> (-R) | 156 (6)                                    | 186 (11)                                   |
|                                 | <i>Medicago</i>       | 9 (1)                                      | 253 (11)                                   |
| <b>ANOVA results (p-values)</b> |                       |  |  |
| <b>Main effects</b>             |                       |  |  |
| Year (Y)                        |                       | <0.0001                                    | <0.0001                                    |
| Month (M)                       |                       | <0.0001                                    | <0.0001                                    |
| Cover crop treatment (T)        |                       | <0.0001                                    | <0.0001                                    |
| <b>Interactions</b>             |                       |  |  |
| Y x M                           |                       | <0.0001                                    | <0.0001                                    |
| Y x T                           |                       | <0.0001                                    | <0.0001                                    |
| M x T                           |                       | <0.0001                                    | <0.0001                                    |
| Y x M x T                       |                       | <0.0001                                    | <0.0001                                    |

The values shown are main effect means ( $\pm$ SE); Means within a column and within a main effect with different letters are significantly different ( $p<0.05$ ) according to THSD test; -R, without *Rhizobium* inoculant

**Supplementary Table S2.** Effect of *Rhizobium* inoculation on the establishment and development of vetch (*Vicia sativa*) and the weed Oxalis (*Oxalis pes caprae*). Values shown are main effect means  $\pm$ SE

| Main effect means               |                       | Vicia density<br>(plants/m <sup>2</sup> ) | Oxalis density<br>(plants/m <sup>2</sup> ) |
|---------------------------------|-----------------------|---|--|
| Year                            | 2006                  | 197 $\pm$ 8 <b>a</b>                      | 254 $\pm$ 10 <b>a</b>                      |
|                                 | 2007                  | 111 $\pm$ 7 <b>c</b>                      | 175 $\pm$ 17 <b>b</b>                      |
|                                 | 2008                  | 134 $\pm$ 5 <b>b</b>                      | 84 $\pm$ 3 <b>c</b>                        |
| Months                          | January               | 156 $\pm$ 10 <b>b</b>                     | 27 $\pm$ 15 <b>a</b>                       |
|                                 | February/March        | 184 $\pm$ 7 <b>a</b>                      | 154 $\pm$ 9 <b>b</b>                       |
|                                 | April                 | 100 $\pm$ 4 <b>c</b>                      | 81 $\pm$ 6 <b>c</b>                        |
| Cover crop treatment            | <i>V. sativa</i> (-R) | 156 $\pm$ 6                               | 186 $\pm$ 11                               |
|                                 | <i>V. sativa</i> (+R) | 138 $\pm$ 6                               | 156 $\pm$ 8                                |
| <b>ANOVA results (p-values)</b> |                       |   |  |
| <b>Main effects</b>             |                       |   |  |
| Year (Y)                        |                       | <0.0001                                   | <0.0001                                    |
| Month (M)                       |                       | <0.0001                                   | <0.0001                                    |
| Cover crop treatment (T)        |                       | 0.0022                                    | 0.0006                                     |
| <b>Interactions</b>             |                       |   |  |
| Y $\times$ M                    |                       | <0.0001                                   | <0.0001                                    |
| Y $\times$ T                    |                       | <0.0001                                   | 0.1003                                     |
| M $\times$ T                    |                       | <0.0001                                   | <0.0001                                    |
| Y $\times$ M $\times$ T         |                       | 0.0005                                    | 0.0017                                     |

Means within a column with the same letter are not significantly different ( $p<0.05$ ) according to THSD test; -R, without *Rhizobium* inoculant; +R, with *Rhizobium* inoculants



**Supplementary Figure S1.** Effect of year, month and cover crop treatment (with and without *Rhizobium* seed inoculation) on vetch and Oxalis density. Bars with the same letter for the same year are not significantly different according to THSD tests ( $p < 0.05$ ); -R=without *Rhizobium* inoculant, +R=with *Rhizobium* inoculants. Values shown are interaction means  $\pm$ SE